Claims

[c1]   1. A document management system, comprising:
one or more document repositories for storing documents;
a document notification and delivery service (DNDS) for detecting documents pertaining to subjects that are stored in the document repositories; and
a plurality of workflow modules subscribing to the DNDS to receive documents identified that pertain to one or more subscribed subjects; at least two workflow modules producing one or more documents that are published to one or more of the document repositories;
wherein a first workflow module publishes to one of the document repositories a first document which is detected by the DNDS and which pertains to at least one subscribed subject of a second workflow module; and
wherein subsequent to the publication of the first document by the DNDS to the one of the document repositories, the DNDS delivers the first document to the second workflow module that operates independent from the first workflow module to produce a second document.

[c2]   2. The document management system according to claim

1, further comprising notification targets for subscribing to subjects at the DNDS to receive alerts when documents are identified that pertain to one or more subscribed subjects.

[c3] 3. The document management system according to claim 1, wherein one of the plurality of workflow modules is one of a web service and a physical process.

[c4] 4. The document management system according to claim 1, wherein the DNDS processes the first document before delivering it to the second workflow module.

[c5] 5. The document management system according to claim 4, wherein the DNDS processes the first document by performing one of summarization, enrichment, and translation.

[c6] 6. The document management system according to claim 1, wherein the DNDS further comprises means for:
(a) monitoring events and attributes concerning detected documents for which notification or delivery are performed; and
(b) using the monitored events and attributes to identify ones of the detected documents as highly rated documents for notification to users not originally subscribed to the subject for which the notification or delivery is

performed.

[c7]   7. The document management system according to claim 1, wherein the DNDS further comprises:

a plurality of document repositories with each being adapted to store a plurality of documents;

a subject directory for representing subjects of the plurality of documents in the plurality of document repositories;

a profile directory for representing a plurality of users accounts, with each user account subscribing to at least one subject;

a subject refinement module for:

monitoring document notifications and delivery requests associated with the document notifications to provide subject refinement data; and

using the subject refinement data to refine subjects in the subject directory.

[c8]   8. The document management system according to claim 1, wherein the DNDS further comprises:

a plurality of document repositories with each being adapted to store a plurality of documents;

a subject directory for representing subjects of the plurality of documents in the plurality of document repositories;

a profile directory for representing a plurality of users

accounts, with each user account subscribing to at least one subject;

a profile refinement module for:

monitoring frequency of user delivery requests for document notifications concerning each subscribed subject to provide profile refinement data; and

using the profile refinement data to refine user preferences for document notification and delivery.

[c9]   9. The document management system according to claim 1, wherein the DNDS further comprises a failure recovery module for:

recording component failure information;

assigning each of the document repositories according to one of a plurality of operating behaviors using the component failure information; and

determining appropriate action to take in response to component identified failures using the operating behavior assigned to the document repository to which the component is associated.

[c10]   10. A method for operating a document management system, comprising:

storing documents in one or more document repositories;

detecting documents pertaining to subjects that are stored in the document repositories with a document

notification and delivery service (DNDS); and subscribing to the DNDS to receive documents identified that pertain to one or more subscribed subjects with a plurality of workflow modules; wherein (i) at least two workflow modules produce one or more documents that are published to one or more of the document repositories, (ii) a first workflow module publishes to one of the document repositories a first document which is detected by the DNDS and which pertains to at least one subscribed subject of a second workflow module, and (iii) subsequent to the publication of the first document by the DNDS to the one of the document repositories, the DNDS delivers the first document to the second workflow module that operates independent from the first workflow module to produce a second document.

[c11]   11. The method according to claim 10, further comprising subscribing with notification targets to subjects at the DNDS to receive alerts when documents are identified that pertain to one or more subscribed subjects.

[c12]   12. The method according to claim 10, wherein one of the plurality of workflow modules is one of a web service and a physical process.

[c13]   13. The method according to claim 10, further compris-

ing processing the first document at the DNDS before delivering it to the second workflow module.

[c14]   14. The method according to claim 13, wherein said processing comprises one of summarization, enrichment, and translation.

[c15]   15. The method according to claim 10, wherein the method further comprises at the DNDS:
(a) monitoring events and attributes concerning detected documents for which notification or delivery are performed; and
(b) using the monitored events and attributes to identify ones of the detected documents as highly rated documents for notification to users not originally subscribed to the subject for which the notification or delivery is performed.

[c16]   16. The method according to claim 10, further comprising:
storing a plurality of documents at a plurality of document repositories;
representing subjects of the plurality of documents in the plurality of document repositories with a subject directory;
representing a plurality of users accounts, with each user account subscribing to at least one subject with a profile

directory;

monitoring document notifications and delivery requests associated with the document notifications to provide subject refinement data; and

using the subject refinement data to refine subjects in the subject directory.

[c17] 17. The method according to claim 10, further comprising:

storing a plurality of documents at a plurality of document repositories;

representing subjects of the plurality of documents in the plurality of document repositories with a subject directory;

representing a plurality of users accounts with a profile directory, where each user account subscribing to at least one subject;

monitoring frequency of user delivery requests for document notifications concerning each subscribed subject to provide profile refinement data; and

using the profile refinement data to refine user preferences for document notification and delivery.

[c18] 18. The method according to claim 10, further comprising:

recording component failure information;

assigning each of the document repositories according

to one of a plurality of operating behaviors using the component failure information; and

determining appropriate action to take in response to component identified failures using the operating behavior assigned to the document repository to which the component is associated.

[c19]   19. An article of manufacture for operating a document management system, the article of manufacture comprising computer usable media including computer readable instructions embedded therein that causes a computer to perform a method, wherein the method comprises:

storing documents in one or more document repositories;

detecting documents pertaining to subjects that are stored in the document repositories with a document notification and delivery service (DNDS); and

subscribing to the DNDS to receive documents identified that pertain to one or more subscribed subjects with a plurality of workflow modules;

wherein (i) at least two workflow modules produce one or more documents that are published to one or more of the document repositories, (ii) a first workflow module publishes to one of the document repositories a first document which is detected by the DNDS and which per-

tains to at least one subscribed subject of a second workflow module, and (iii) subsequent to the publication of the first document by the DNDS to the one of the document repositories, the DNDS delivers the first document to the second workflow module that operates independent from the first workflow module to produce a second document.

[c20] 20. The article of manufacture according to claim 19, wherein the method further comprises subscribing with notification targets to subjects at the DNDS to receive alerts when documents are identified that pertain to one or more subscribed subjects.